Egguilibrium

(Welch, Chapter 07-B)

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1: The Egg Approach to Finance

- Egg sellers and egg buyers.
- Consider vendor choices and the egguilibrium.
- Try to convey reasoning in an overall economy.

- The insights of investments can apply to real products, just as they apply to financial investments.
- This parable is *not* in the book!

2: Egg Problem

- **Your problem**: Choose a portfolio of eggs to bring to the market for sale.
- You do not know for sure which eggs will sell—but you have a good idea which will.
- Some egg colors have higher likelihood of selling, others have lower (vomit-green).
- For your customers, egg products could have a fashion aspect—some will appeal to them, others not.
- Eggs can be imperfect substitutes.

3: Eggfect Market

We assume a perfect market:

1. No differences in opinion.
2. No taxes.
3. No transaction costs.
4. Many buyers and sellers

plus uncertainty.

Assume no gains to specialization, and anyone can be a vendor (or producer or consumer).

4: Egg Risk

- Let's presume you are a seller.
- You care about your risk and reward.
- Which of the two would you care about?

1. risk and reward of each egg by itself,
    - if so, what would you stock with?
2. overall basket risk and reward?

5: Your Eggchandise Choice

- Key Question: Should you make/purchase just the most likely egg that will sell?

6: Safest Egg

- Take no risk!

- Go out of business (?!)

(Maybe yes?)

7: Mix Eggs?

Should you come to market with *a* mix of different eggs?

8: A Vomit-Green Egg?

- Consider a completely different type of product, which is very risky in itself. That is, you do not think it will sell.
- If you have stocked lots of the-most-likely-egg, except one vomit-green, what is the risk contribution of this one vomit-green egg?
- Does it increase your overall risk?

9: Egguilibrium

How much would you be willing to pay to stock the only vomit-green egg?

10: Eggs and Markets

- You want to understand basket selection.
- Given probabilities and prices, how would you optimally stock your basket?
  - If an asset is very different from all other assets (it pays off when other assets do not pay off), would you be willing to pay a higher price?

11: Risk-Reward Of Seller

- In the context of investment theory, you should like eggs that:
  1. pay off often,
  2. pay off big when other eggs do not.
- This is **optimal portfolio choice** (chapter 8)
  - If you are “only” an investor, you are done.

12: Risk-Reward of Market

- But maybe…
- Do you want to understand how the prices of eggs will adjust to the many vendors who want to stock baskets?
- If more sellers want the vomit-green purple egg (because it is so different), then the price of vomit-green will increase.
- Egguilibrium is about the proper prices, given optimal choices.

13: EAPCM

- The Egg Asset Pricing Model is the model that tells us how risk and reward are related to:
  - how individual products are expected to perform,
  - and how individual products are different.

This is the subject of the Chapter 11 (CAPM).

14: Corporate Expertise

- If you are a corporate CEO making eggs, you must think about what eggs (for vendors and consumers) you want to make,
- i.e., what projects you want to offer to investors that like eggs that:
  1. pay off often, and
  2. pay off when other eggs do not.

Make an eggcelent choice, please!